

Work Order ID 60400

July 7, 2010 9:53:48 AM



Page 1

Item ID:	D3281-3L02	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Floor Protector, Aft LH (Black)					
Start Date:	7/07/10	Start Qty:	4.00			
Required Date:	7/14/10	Req'd Qty:	4.00			
Reference:						

Approvals:	Process Plan:	<u>CG</u>	Date:	<u>10/7/17</u>	Tooling:		Date:	
	QC:		Date:		SPC (Y/N):		Date:	

Run	Start	
	Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3281	Rev D
DSI 9504	A

PH →

100		0.00
	HAND FINISHING THERMOFORMING	
Thermoform	Memo:	0.00
Thermoforming Machine	Cut Blanks	

(X4) BB 10/07/16

105		0.00
	Dry Material	
HandThermo	Memo	0.00
Hand Finishing Thermoforming	Dry Sheet as per QSI022 POLYCARBONATE	

Temp: 210 F
Time IN: 4:30 PM 10/07/18
Time OUT: 7:00 AM 10/07/19

(X4) BB 10/07/19

Dart Aerospace Ltd

W/O: 60400		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/7/22	100	Perm. J. any Fix Day Rev in header box to current / correct Rev	B	10.07.28		<i>[Signature]</i> 10/09/23	S 10/02/22

Part No: D3281-3L02 PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: *[Signature]* Date: 10.09.23

Resolution: _____ Disposition: _____ QA: N/C Closed: *[Signature]* Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10.07.21	130	width is 17.63 INSTEAD OF 17.8.	CP 10.07.21 QSI 042	DIM OK. CREATE NCR TO UPDATE DWG & FAI	BS 10/07/21 see CAR 10-21	S 10/07/22 10/09/23	CP 10.07.21 QSI 042	S 10/07/22

NOTE: Date & initial all entries

Work Order ID 60400

July 7, 2010 9:53:48 AM



Page 2

Item ID: D3281-3L02

Accept



Setup Start



Revision ID:

Stop



Item Name: Floor Protector, Aft LH (Black)

Start Date: 7/07/10

Start Qty: 4.00



Cust Item ID:

Required Date: 7/14/10

Req'd Qty: 4.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

0.00



THERMOFORMING MACHINE

Thermoform

Memo

0.00

Thermoforming Machine

Thermoform as per Dwg. D3281 and Folio FTA 009

Dwg. Rev. _____

Folio Rev. _____

(X4) BB 10/07/19

120

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

(X4) BB 10/07/19

130

0.00



HAND FINISHING THERMOFORMING

Thermoform

Memo

0.00

Thermoforming Machine

Trim to Finished Dimensions

(X4) BB 10/07/21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 60400

July 7, 2010 9:53:48 AM



Page 3

Item ID: D3281-3L02

Accept



Setup Start



Revision ID:

Stop



Item Name: Floor Protector, Aft LH (Black)

Start Date: 7/07/10 Start Qty: 4.00



Cust Item ID:

Required Date: 7/14/10 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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140

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

JB
(X4) 10/07/21

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8.56/22

(X4)

160

Packaging

0.00



Packaging

Memo

0.00

Packaging

5/143

10.7.23

425

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 60400

July 7, 2010 9:53:48 AM

Page 4



Item ID: D3281-3L02

Accept



Setup Start



Revision ID:

Stop



Item Name: Floor Protector, Aft LH (Black)

Start Date: 7/07/10 Start Qty: 4.00



Cust Item ID:

Required Date: 7/14/10 Req'd Qty: 4.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/09/23 *[Signature]**ME*

10-7-23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

July 7, 2010 9:53:48 AM

Page 1

Work Order ID: 60400

Parent Item: D3281-3L02

Parent Item Name: Floor Protector, Aft LH (Black)

Start Date: 7/07/10

Required Date: 7/14/10

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev: A ☐ 04.07.01 ☐ New issue ☐ KJ/JLM
IPP Rev B 07.08.07 Thermoform in house DL
Add Step 105 Dry Material 10/04/21 DL

IPP Rev. C

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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MLEXS.093-F6006-02		Purchased	No				sf	1,057.296	4.333	17.332			
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GE PLASTICS LEXAN SHEET

Location

Loc Qty

Loc Code

therm

1057.296

110877

1057.296

== (X4) BB 10/07/16

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 60400
Description: Floor Protector, Aft LH		Part Number: D3281-3
Inspection Dwg: D3281	Rev: D	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than 0.1875"	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: JB **Date:** 10/02/21

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
17.8	+/-0.100	17.625		✓		UOL to be revised
17.1	+/-0.100	17.00		✓		
14.3	+/-0.100	14.3	✓			DIMS OK
0.95	+/-0.030	.99				CP 10.0721
0.25	+/-0.030	N/A				
3.1	+/-0.100	N/A				
0.050	Min	.063	✓			
0.070	Min	.084	✓			

Measured by: JB **Date:** 10/07/21

Audited by: 8 **Date:** 10/07/22

Prototype Approval: N/A **Date:** N/A

Rev	Date	Change	Revised by	Approved
A	08.02.28	New Issue	KJ/DL	
B	08.04.16	Dimensions updated per Dwg Rev D	KJ/DL	
C	08.09.12	Tolerance revised for 0.070 dimension	KJ/DL	

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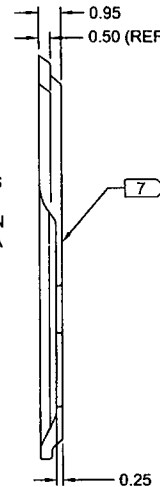
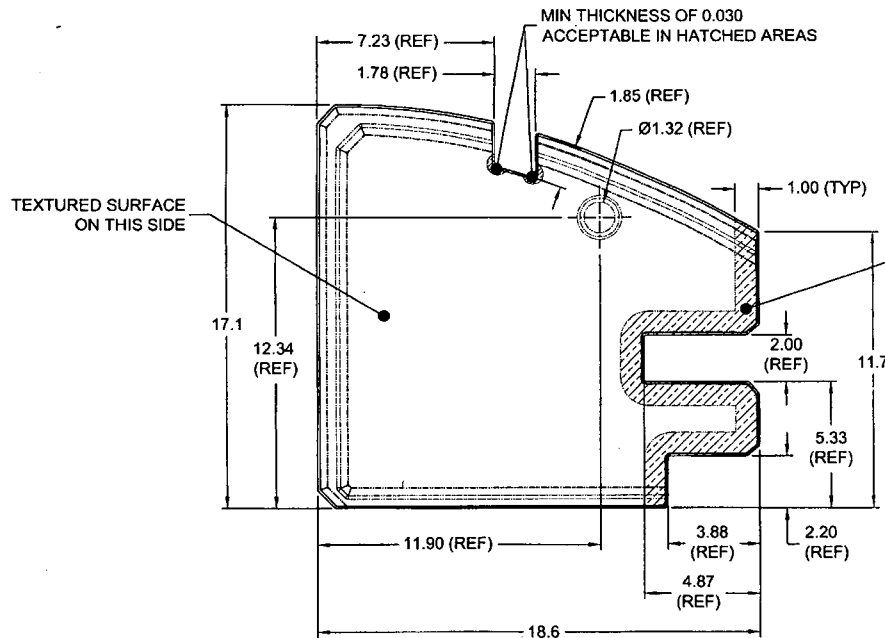
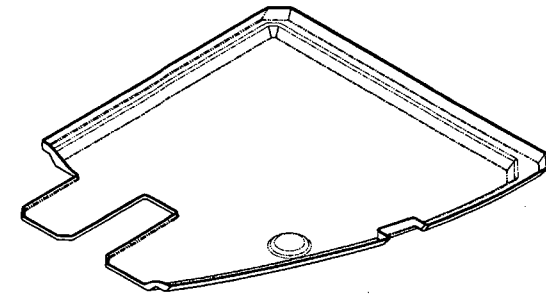
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WORK ORDER

NO. 60400

6/20/77



D3281-1 FLOOR PROTECTOR

D3281-1 NOTES:

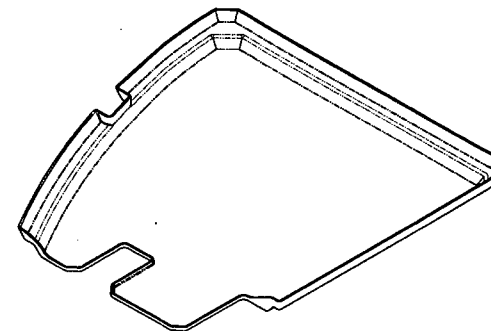
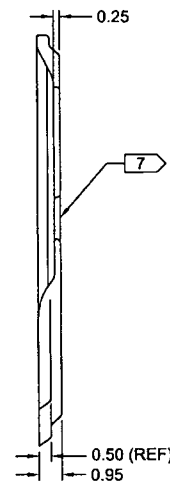
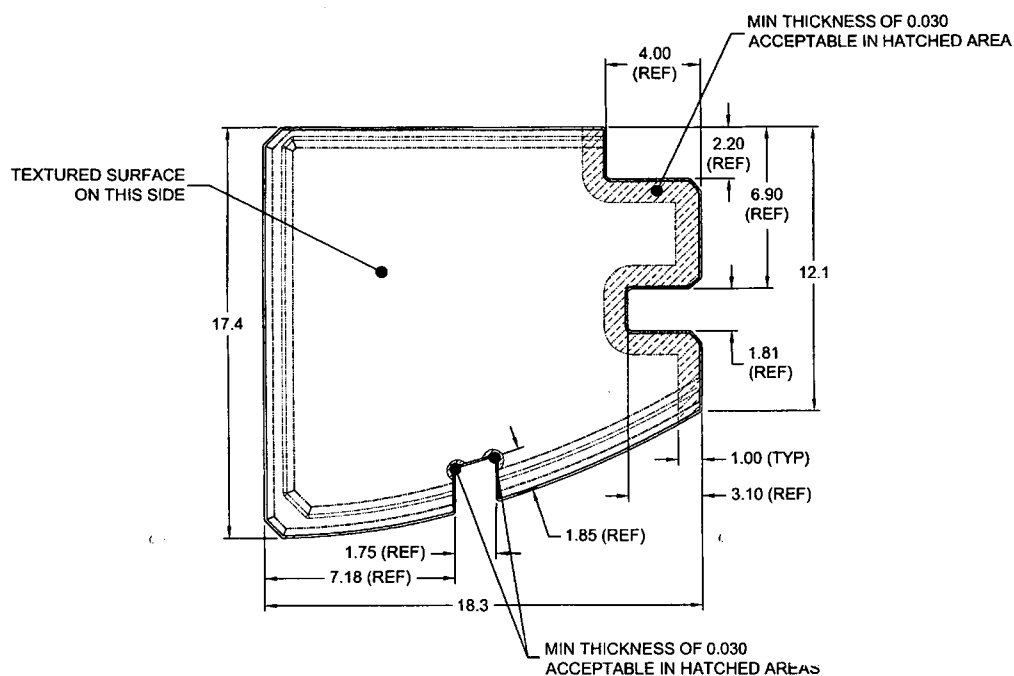
- 1) THERMOFORM WITH MOLD D3281-1T1 PER DART QSI 022; TRIM AS SHOWN
MINIMUM THICKNESS AFTER FORMING: 0.070" EXCEPT WHERE INDICATED
- 2) MATERIAL: LEXAN F6006, BLACK No. 701, 0.093" THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-1" AND BATCH NUMBER "BXXXXX" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS
- 8) WEIGHT: 0.95 lb

DEO ATTACHED

RELEASED

2010-02-03

E	-3/4 NOW TRIMMED FLAT; RMV 0.25 BEVEL TO FACILITATE TRIMMING (ZN D6-3, D4-4)	CP	10.01.05
D	THICKNESS 0.093 WAS 0.125, MIN THICKNESS 0.070 WAS 0.080, P/N AND B/N ID WITH VIBRATING STYLUS (ZN A7-1, A7-2, A7-3, A7-4); D3281-4 NOW ON PAGE 4; CORRECT WEIGHTS (ZN A8-1, A8-2, A8-3, A8-4)	PH	08.03.28
C	UPDATE DIMS TO MATCH PARTS: COLOUR 701 WAS 700; GENERAL UPDATE	LE	07.10.09
B	NOW LEXAN; DIMS AS MANUFACTURED	CP	05.11.25
A	NEW ISSUE	CP	04.05.03
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>gp</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>gp</i>		
CHECKED	<i>gp</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>gp</i>	D3281	SHEET 1 OF 4
APPROVED	<i>gp</i>	TITLE	SCALE
DE APPR.	<i>gp</i>	FLOOR PROTECTOR	NTS
DATE	10.01.05	COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	



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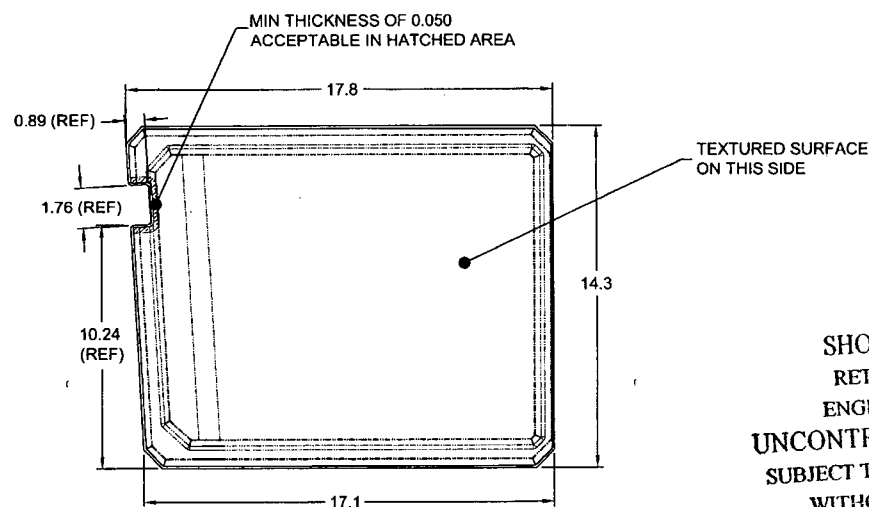
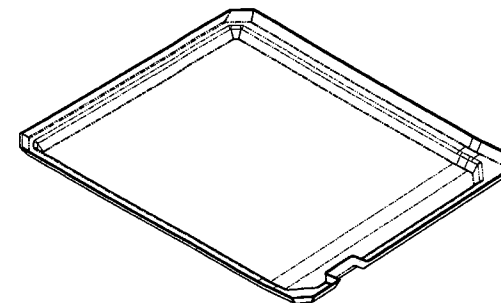
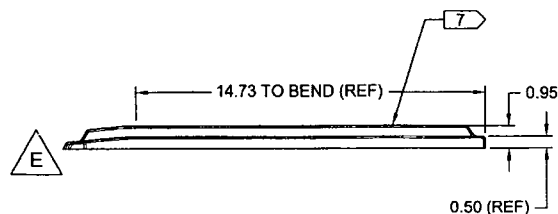
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2010-02-03

D3281-2 FLOOR PROTECTOR

D3281-2 NOTES:

- 1) THERMOFORM WITH MOLD D3281-2T1 PER DART QSI 022; TRIM AS SHOWN
MINIMUM THICKNESS AFTER FORMING: 0.070" EXCEPT WHERE INDICATED
- 2) MATERIAL: LEXAN F6006, BLACK No. 701, 0.093" THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-2" AND BATCH NUMBER "BXXXXX" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS
- 8) WEIGHT: 0.97 lb

DESIGN	43	DART AEROSPACE LTD	
DRAWN	44	HAWKESBURY, ONTARIO, CANADA	
CHECKED	45	DRAWING NO.	REV. E
MFG. APPR.	46	D3281	SHEET 2 OF 4
APPROVED	47	TITLE	SCALE
DE APPR.	48	FLOOR PROTECTOR	NTS
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D3281-3 FLOOR PROTECTOR

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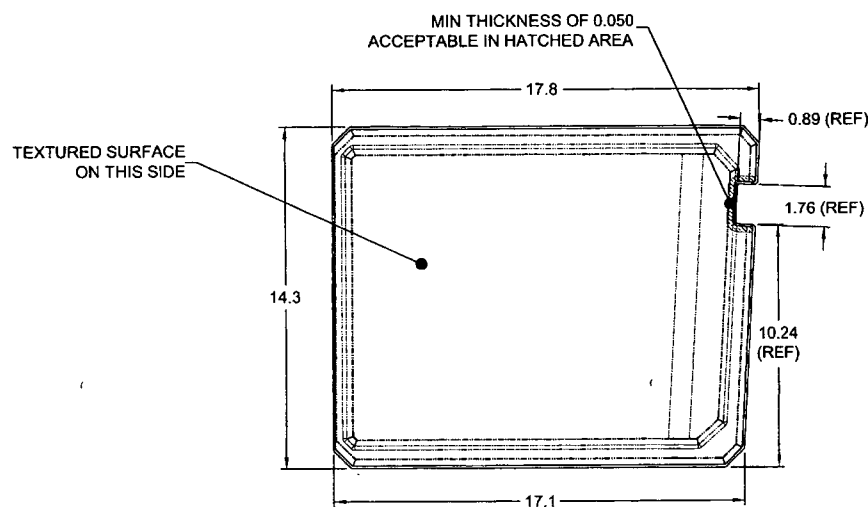
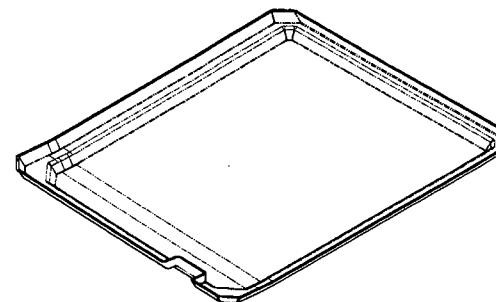
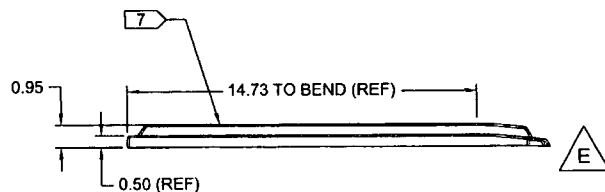
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2010-02-03

D3281-3 NOTES:

- 1) THERMOFORM WITH MOLD D3281-3T1 PER DART QSI 022; TRIM AS SHOWN
MINIMUM THICKNESS AFTER FORMING: 0.070" EXCEPT WHERE INDICATED
- 2) MATERIAL: LEXAN F6006, BLACK No. 701, 0.093" THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-3" AND BATCH NUMBER "BXXXXX" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS
- 8) WEIGHT: 0.87 lb

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3281	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		FLOOR PROTECTOR	NTS
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8 7 6 5 4 3 2 1



D3281-4 FLOOR PROTECTOR

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D3281-4 NOTES:

- 1) THERMOFORM WITH MOLD D3281-4T1 PER DART QSI 022; TRIM AS SHOWN
MINIMUM THICKNESS AFTER FORMING: 0.070" EXCEPT WHERE INDICATED
- 2) MATERIAL: LEXAN F6006, BLACK No. 701, 0.093" THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-4" AND BATCH NUMBER "BXXXXX" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS
- 8) WEIGHT: 0.87 lb

DESIGN	42	DART AEROSPACE LTD	
DRAWN	192	HAWKESBURY, ONTARIO, CANADA	
CHECKED	h	DRAWING NO.	REV. E
MFG. APPR.	h	D3281	SHEET 4 OF 4
APPROVED	h	TITLE	SCALE
DE APPR.	h	FLOOR PROTECTOR	NT
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8 7 6 5 4 3 2 1

DRAWING NO. D3281	TITLE FLOOR PROTECTOR	REV. E	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3281-E-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>qp</i>	CHECKED <i>K</i>	MFG. APPR. <i>DL</i>	APPROVED <i>#</i>	DE APPR. <i>#</i>			
DATE 10.02.24	DATE 10.02.25	DATE 10/02/25	DATE 10.02.25	DATE 10.02.25			

PURPOSE

ADD "D3281-xL08" MATERIAL OPTION. EXISTING PARTS TO BE IDENTIFIED AS "D3281-xL02"

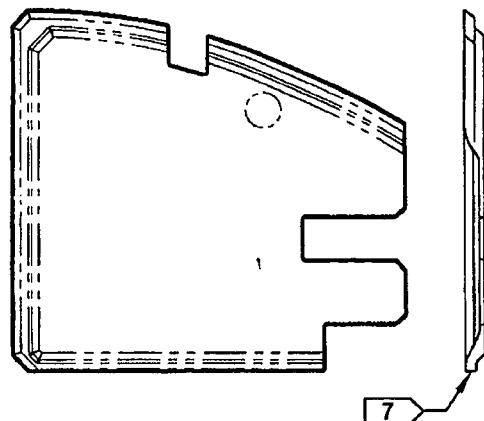
CHANGE

D3281-xL08 PARTS ARE EQUIVALENT TO THE RESPECTIVE "-x" PARTS EXCEPT AS DETAIL BELOW. THE MATERIAL, IDENTIFICATION, AND WEIGHT NOTES ARE AMENDED AS FOLLOWS:

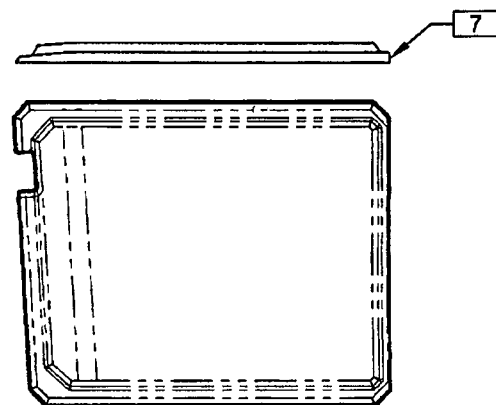
- 2) MATERIAL: -xL02 = LEXAN F6006, BLACK No. 701, 0.093" THICK (MLEXS.093-F6006-02)
 -xL08 = LEXAN 90318 (PROTECT-A-GLAZE), 0.118 THICK, 112-CLEAR (MLEXS.118-90318-08)

- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-xLxx" AND B/N "Bxxxxx" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS.
 FOR -xL08 PARTS, LOCATE ENGRAVING ALONG PERIMETER OF PART AS SHOWN.

- 8) WEIGHT: D3281-1L02/-2L02 = 0.95 lb D3281-1L08/-2L08 = 1.13 lb
 D3281-1L02/-2L02 = 0.87 lb D3281-3L08/-4L08 = 1.05 lb



D3281-1L08 FLOOR PROTECTOR (SHOWN)
D3281-2L08 FLOOR PRETECTOR (OPPOSITE)
 LOCATION OF ENGRAVING



D3281-3L08 FLOOR PROTECTOR (SHOWN)
D3281-4L08 FLOOR PRETECTOR (OPPOSITE)
 LOCATION OF ENGRAVING

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